VZOROV, B.A., kand.tekhn.nauk; BUDYKO, Yu.I., kand.tekhn.nauk; KOGANER, V.E.; MAL'TSEV, A.V.; ZAYCHENKO, S.N.; SATAROV, V.A.; ABOLTIN, E.V.

Brief news. Avt.prom. 31 no.10:40-48 O '65.

(MIRA 18:10)

Electrical conductivity as a ...

activation is less. At temperatures below 350 °C the shape of the relationship ln σ (1/T) at fields of up to 9 x 10^5 V/cm is affected by high-voltage polarisation which reduces σ (this is most noticeable in weak fields, particularly for specimens containing mineral inclusions). In strong fields, specimens containing inclusibns display an increase of σ before breakdown at lower field strengths than are observed with pure specimens. The difference between the experimental and theoretical curves of ln σ (1/T) is explained by the dependence of permittivity on temperature.
4 figures. 12 references.

[Abstractor's note: Complete translation.]

Card 2/2

15.2000

S/196/62/000/013/005/018
E194/E155

AUTHOR: Mal'tsev, A.V.

TITLE: Electrical conductivity as a function of temperature in pure muscovite and muscovite with mineral inclusions in weak and strong electric fields

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.13, 1962, 8, abstract 13 B 45. (Uch. zap. Leningr. gos. ped. in-ta imeni A.I. Gertsena 207, 1961, 211-218).

TEXT: A study was made of the specific conductivity σ of pure muscovite and also of muscovite with inclusions of magnetite at temperatures up to 650 °C in weak fields (from 3.3×10^3 to 6.5×10^2 V/cm), and up to 500 °C in strong fields (from 9×10^4 to 2×10^6 V/cm). The specimens were 15-45 microns thick. Before measurement they were heated for 1-1.5 hours at 450-500 °C. For all the specimens in both weak and strong fields the temperature T as function of σ is of the form $\sigma = A \cdot \exp.(-B/T)$ where A and B are constants. For strong fields the values of B are lower than for weak, which indicates that the energy of

Card 1/2

MAL'TSEV, A.V.; BERDINSKIY, V.F.

Temperature dependence of the dielectric permeability of mica-muscovite at frequencies ranging from 50 cps. to 1 Mc. Uch.zap. Ped.inst.Gerts.no.207:219-226 '61. (MIRA 16:5)

1. Omskiy gosudarstvennyy pedagogicheskiy institut imeni A.M. Gor'kogo.

(Muscovite) (Dielectric constant)

MAL'TSEV, A.V.

Temperature dependence of the conductance of pure muscovite with mineral inclusions in weak and high electric fields. Uch.zap.Ped. inst.Gerts.no.207:211-218 '61. (MIRA 16:5)

1. Omskiy gosudarstvennyy pedagogicheskiy institut imeni A.M. Gor'kogo.
(Muscovite--Electric properties) (Electric fields)

MAL'TSEV, A.V.

Safe means of drilling a hole. Neftianik 6 no.3:20 Mr '61.
(MIRA 14:10)

1. Normativno-issledovatel'skaya stantsiya Krasnokamskogo neftepromyslovogo upravleniya.
(Boring)

MAL'TSEV, A.V.

Mal'tsev, A.V. [Vologodskiy pedagogicheskiy institut (Vologda Pedagogical Institute)] The Influence of Strong Electric Fields on the Electroconductivity of Pure Muscovite and Muscovite With Mineral Embeddings in the Cleavage Faces

(The Physics of Dielectrics, Transactions of the All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1958. 245 p. 3,000 copies printed.

This volume publishes reports presented at the All-Union Conference on the Physics of Dielectrics, held in Dnepropetrovsk in August 1956 sponsored by the "Physics of Dielectrics" Laboratory of the Fizicheskiy Institut imeni Lebedeva AN SSSR (Physics Institute imeni Lebedev of the AS USSR), and the Elektrofizicheskiy Fakultet of the Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

MAL'TSEV, A. V.

MAL'TSEV, A.V.

Odorization of gas in the system of the Sakhalin Oil Field Administration. Gaz.pro..., 3:21 Ap '57. (MLRA 10:9)
(Sakhalin--Gas, Natural)

MAL'TSEV, A.V.

USSR/Electricity - Dielectrics G-2

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12086

Author : Mal'tsev, A.V.

Inst : Vologda Pedagogical Institute, USSR

Title : Effect of Impurities and of the Temperature on the Electric Conductivity of Rock Salt.

Orig Pub : Uch. zap. Vologod. ped. in-ta, 1956, 17, 65-84

Abstract : Report on an investigation of the dependence of the electric conductivity (σ) on the temperature for certain series of specimens of rock salt without preliminary heating, after heating to 710° at various durations, and after introducing copper and nickel ions into the crystals by means of electric diffusion. All the curves obtained for the dependence of $\ln\sigma$ on $1/T$ diclose the following: (1) Smooth bend in the region of 250 -- 260°, due to the

Card 1/2

MAL'TSEV, A.V

USSR/Electricity - Dielectrics G-2

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12080

Author : Mal'tsev, A.V.

Inst : Pedagogical Institute, Vologda

Title : The Dielectric Strength of Mica with Mineral Inclusions in the Cleavage Plane at High Temperatures.

Orig Pub : Uch. zap. Vologod. ped. in-ta, 1956, 17, 3-36

Abstract : An investigation was made of the influence of various types of inclusions on the breakdown voltage and the dielectric strength of mica-muscovite in dc and ac voltages in the temperature range from 20 to 600°. The dendrite-like black inclusions, which occupy a considerable area of the specimen, reduces the electric strength of the mica by 15 -- 18% in the range from 20 to 300°. At higher temperatures, the reduction is less noticeable. Inclusions in the

Card 1/2

MAL'TSEV, A.S.

On the road of progress. Tekst.prom. 21 no.2:67-68 Ja '61.
(MIRA 14:3)

1. Glavnyy inzh.Lezhnevskoy fabriki
(Textile machinery)

MAL'TSEV, A.S.

Experience in processing low-grade cotton. Tekst.prom 16 no.12:16-17 D'56. (MLRA 10:1)

1. Glavnyy inzhener Lezhnevskoy pryadil'no-tkatskoy fabriki.
(Lezhnevo--Cotton spinning)

1. MAL'TSEV, A.S.

2. USSR (600)

4. Agriculture

7. Wood science and timber commodities science. Moskva, TSentr. Zaochn. lesotekhn. tekhnikum, 1952

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

L 00066-66

ACCESSION NR: AP5021325

experimental (electrolytic tank) values shows that the error in ν is within a 2.5% limit, and that in δ it is within $\pm 15\%$ provided the ratio of the two sides of the rectangular cross section of the channel (c/a) is larger than 3. For c/a = 2.5 the calculated values turn out to be too high. Orig. art. has: 10 formulas, and 1 figure.

ASSOCIATION: None

SUBMITTED: 27May64 ENCL: 00 SUB CODE: NP, MA

NO REF SOV: 004 OTHER: 000

Card 2/2

L 00066-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c)

ACCESSION NR: AP5021325 UR/0120/65/000/004/0029/0031
539.1.076

AUTHOR: Mal'tsev, A. P.; Teplyakov, V. A.

TITLE: The calculation of gap parameters for accelerating field focusing

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1965, 29-31

TOPIC TAGS: focusing accelerator, particle accelerator, particle accelerator component, Laplace equation

ABSTRACT: The design of an accelerating field focusing accelerator must be based on the knowledge of the efficiency ν and quadrupolarity ζ of the gaps. Because of the complex boundary conditions the exact solution to the Laplace equation cannot be obtained analytically or with the help of electronic computers. One method is to utilize paraxial values of the field and field gradients measured within an electrolytic tank. Another method is presented in this paper and it utilizes approximate analytical expressions for the electrical gap parameters derived as a function of the geometrical dimensions of the gap by solving the electrostatic problem with approximate specification of the boundary conditions. This approach is feasible in a large number of cases. A comparison of the calculated and

Card 1/2

L 23741-65

ACCESSION NR: AP4041563

ENCLOSURE: 1

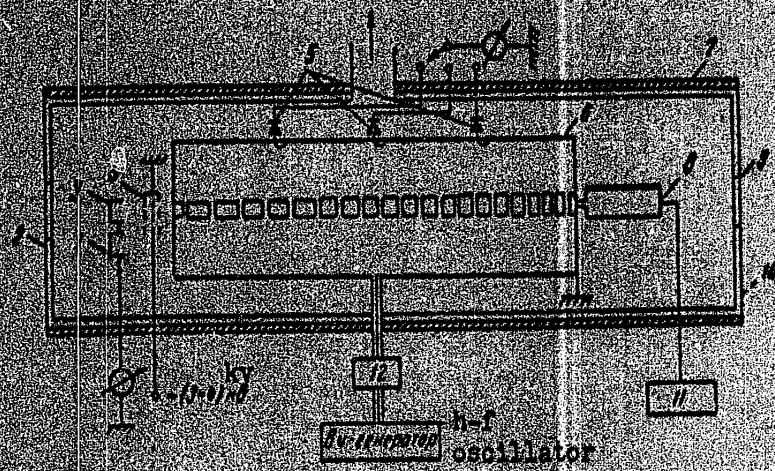


Fig. 1

An electronic simulator of the proton linear accelerator
1 - screen, 2 - window, 3 - receiver, 4 - grid analyzer,
5 - power-level indicators, 6 - resonator, 7 - magnetic shield,
8 - gun, 9 - window, 10 - vacuum container, 11 - power supply,
12 - impedance transformer

Card 3/3

L 21743-65

ACCESSION NR: AP4044663

the beam. Number of accelerating gaps, 20; wavelength, 61.1 cm; resonator length, 1,253 mm; input and output energies of electrons, 2.1 and 3.6 kev, respectively; same of protons, 3.85 and 6.6 Mev. Instead of a conventional axial symmetric accelerating channel, rectangular drift-tube channels turned by 90° with respect to each other are used. Experimental current-vs.-blocking-voltage and capture-coefficient-vs.-power curves are reported. These results are claimed to be in good agreement with theory and prove the possibility of focusing by an accelerating field. "The authors wish to thank B. K. Shembel' for his constant attention to the work and valuable advice." Orig. art. has: 6 figures and 3 formulas.

ASSOCIATION: none

SUBMITTED: 26Nov63 ENCL: 01

SUB CODE: NP NO REF SOV: 005 OTHER: 001

Card 2/3

L 2453-65 EWT(m)/EPA(w)-2/EWA(m)-2 Pab-10/Pt-10 IJP(c)/AFWL/SSD/ESD/
ACCESSION NR: AP4044663 ASD(a) S/0120/64/000/004/0020/0023

AUTHOR: Maltsev, A. P.; Zorova, E. A.; Teplyakov, V. A. B

TITLE: Experimental investigation of focusing by an accelerating field

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1964, 20-23

TOPIC TAGS: linear accelerator, proton linear accelerator, accelerating field focusing

ABSTRACT: An experimental electron simulator of a proton linear accelerator consists of a cylindrical resonator loaded with drift tubes and excited by E_{010} mode (see Enclosure 1). This simulation condition was met: $(E\lambda/m_0)_e = (E\lambda/m_0)_p$, where E is the electron field intensity, λ is the wavelength, m_0 is the rest mass; $\gamma = \gamma_s/10$, $E_1 = E_s/184$, $W_e = W_p/1840$, where W_e is the electron energy. The outside grids of the analyzer are kept at zero potential; the middle grid is under a blocking potential. Receiver 3 and screen 1 can be alternatively placed across

Card 1/3

ROMANOV, D., kand.tekhn.nauk; MAL'TSEV, A., inzh.

Study and improvement of methods of pressing piles in. Prom.-stroi. i inzh. soor. 4 no.4:30-33 Jl-Ag '62. (MIRA 15:9)
(Piling (Civil engineering))

MAL'TSEV, A.P. (Bratsk)

Sinking piles by pressing them down in construction of the Bratsk Hydroelectric Power Station. Osn., fund.i mekh.grun. 4 no.2:14-15 '62. (MIRA 15:8)
(Bratsk Hydroelectric Power Station--Piling (Civil engineering))

MAL'TSEV, A.P.

A mechanical amalgam mixer. Stomatologiia 36 no.4:70 Jl-Ag '57.
(MIRA 10:11)

(DENTAL INSTRUMENTS AND APPARATUS)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031900030-6

M[illegible]TSEV, A.N.

Synthesis of [illegible] using an electronic computer.
Vych. tekh. i vop. [illegible] no. [illegible]:39-43 '63. (MIRA 17:8)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031900030-6

MAL'TSEV, A.N.; KOBOZEV, N.I.

Activity of Pt blacks prepared in the ultrasonic field from H_2PtCl_6 solutions of various concentrations. Zhur. fiz. khim. 38 no.2:439-441 F '64. (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

ACC NR: AP7003339

According to certain authors, hydrogen atoms formed in reaction (1) react with the hydrazine to decompose it either in one step

$$N_2H_4 + H \rightarrow NH_3 + NH_2 \quad (3)$$

or in two steps

$$H + N_2H_4 \rightarrow N_2H_3 + H_2, \quad (4)$$
$$H + N_2H_3 \rightarrow N_2 + 2H_2. \quad (5)$$

Therefore, it is probable that the role of the nickel and platinum catalysts consists of the acceleration of the recombination of the hydrogen atoms and, hence, in the inhibition of hydrazine decomposition. [W. A. 77] [BO]
Orig. art. has: 1 figure and 1 table.

SUB CODE: 07/ SUBM DATE: 190ct65/ OTH REF: 007

Card 4/4

ACC NR: AP7003339

Hydrazine yield depending on the catalyst.
Each test lasted two hours.

τ, hr	Yield in hydrazine, mg	$\Delta_{N_2H_4}$, %
Without catalyst		
2	37,2	2,0
12	26,6	1,4
14	22,2	1,2
22	24,6	1,3
26	21,7	1,2
28	31,9	1,7
With Ni catalyst		
2	59,8	3,2
14	50,5	3,1
16	27,3	1,5
Catalyst regenerated by heating in the flame of a gas burner		
2	30,6	1,6
4	21,7	1,2
Catalyst redeposited		
2	53,8	2,9
4	51,5	2,8
6	52,0	2,8
8	54,2	2,9
10	57,5	3,1
12	52,0	2,8
14	61,6	3,3
With Pt catalyst		
2	76,0	4,1
4	72,6	4,0
6	69,6	3,8
8	67,1	3,6
Catalyst regenerated by heating in the flame of a gas burner		
2	73,3	4,0
4	74,4	4,0
6	66,2	3,6
Catalyst redeposited		
2	80,3	4,3
4	80,5	4,3
6	78,5	4,2
8	85,1	4,6
10	90,0	4,8
12	85,1	4,6
14	84,0	4,5

τ is the overall time in use of a given surface; $\Delta_{N_2H_4}$ is the degree of conversion of ammonia to hydrazine.

Card 3/4

decompose the salt. Catalyst activity was shown to decrease with time. In some experiments, the catalysts were regenerated by heating as above; in other experiments, the catalysts were redeposited on the electrodes. The results given in the table indicate that nickel and platinum catalysts increase hydrazine yield by a factor of 1.7 and 2.8, respectively. From these results and previous studies it can be assumed that the mechanism of hydrazine formation is as follows: 1) primary dissociation of ammonia

$$NH_3 \xrightarrow{e} NH_3^* \begin{cases} \rightarrow NH_2 + H \\ \rightarrow NH + H_2 \end{cases} \qquad (1)$$

and 2) recombination of the radicals formed

$$NH_2 + NH_2 \xrightarrow{M/S} N_2H_4,$$
$$NH + NH_2 \xrightarrow{M/S} N_2H_4. \qquad (2)$$

ACC NR: AP7003339 SOURCE CODE: UR/0076/66/040/012/3110/3112

AUTHOR: Rubtsova, Ye. A.; Yeremin, Ye. N.; Mal'tsev, A. N.

ORG: Chemistry Department, Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet, Khimicheskiy fakul'tet)

TITLE: Role of catalysts in the synthesis of hydrazine from ammonia in a glow discharge

SOURCE: Zhurnal fizicheskoy khimii, v. 40, no. 12, 1966, 3110-3112

TOPIC TAGS: chemical synthesis, hydrazine, ammonia, ~~hydrazine synthesis~~, glow discharge, nickel ~~catalyst~~, platinum ~~catalyst~~, CATALYST

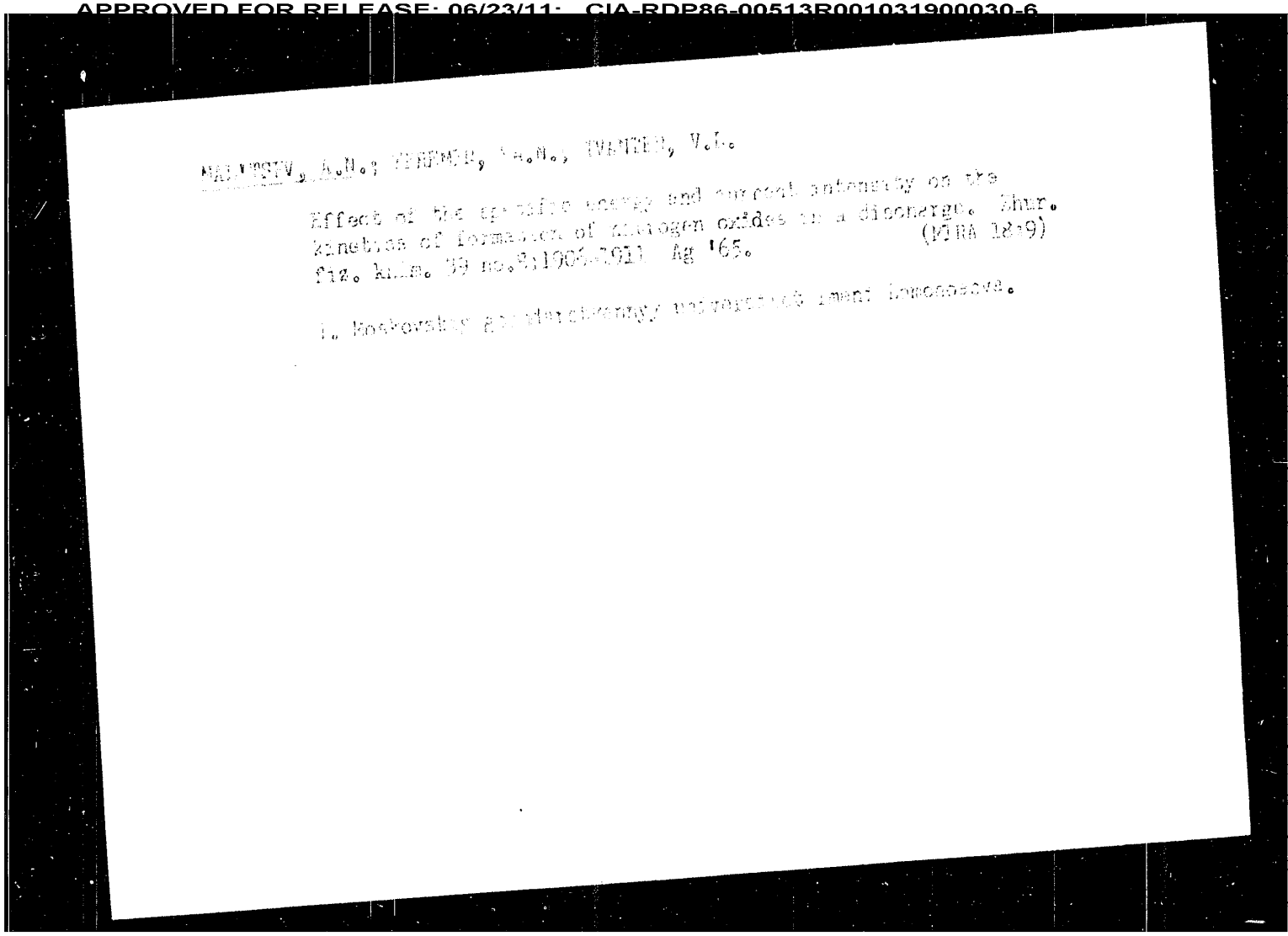
ABSTRACT: A study has been made of the role of nickel or platinum catalysts in the synthesis of hydrazine from ammonia in a glow discharge. The experiments were conducted in a circulation system. The apparatus and procedure are described in the source. Three series of experiments were carried out: 1) without catalysts with glass electrodes preliminarily treated with nitric acid and alkali; 2) with nickel as the catalyst; and 3) with platinum as the catalyst. Thin layers of the catalysts were deposited on the surface of the inner glass electrode by immersion in a solution of nickel nitrate or chloroplatinous acid in absolute alcohol, and by heating in the flame of a gas burner to

Card 1/4 UDC: 541.128+541.14

LI VEN'-CHZHOU; MAL'TSEV, A.N.; KOBOZEV, N.I.

Energy activation of crystalline catalysts. Zhur. fiz. khim. 39 no.11:2704-2707 N '65. (MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.



GOROKHOVA, T.I.; MAL'TSEV, A.N.; KOBOZEV, N.I.

Determining the fraction of active surface of platinum black in catalytic reactions. Zhur. fiz. khim. 39 no.5:1206-1210 My '65. (MIRA 18:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

LI VEN'-CHZHOU; MAL'TSEV, A.N.; KOBOZEV, N.I.

Effect of ultrasonic waves on the genesis and properties of heterogeneous catalysts. Zhur. fiz. khim. 38 no.1:80-88 Ja'64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

LI VEN' CHZHOU [Li Wên-chou]; MAL'TSEV, A.N.; KOBOZEV, N.I.

Activity of adsorption Pt-catalysts obtained in the ultrasonic field. Vest. Mosk. un. Ser. 2: Khim. 19 no.1:39-42 Ja-F '64. (MIRA 17:6)

1. Kafedra fizicheskoy khimii Moskovskogo universiteta.

MIRONOV, G.A.; MAL'TSEV, A.N.; YEREMIN, Ye.N.

Steady state concentrations of nitric oxide in a discharge. Part 5. Zhur.fiz.khim. 37 no.1:36-43 Ja '63. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

L 18875-63

ACCESSION NR: AP3006626

discharge is the basic factor determining the reaction rate. Orig.art. has: 6 figures, 1 table and 14 formulas.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 27Oct62 DATE ACQ: 30Sep63 ENCL: 00

SUB CODE: CH NO REF SOV: 007 OTHER: 001

2/2

Card

L 18875-63 EWT(l)/EWP(q)/EWT(m)/BDS/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/
IJP(C)/SSD Pab-4 JD

ACCESSION NR:AP3006626 S/0076/63/037/009/2087/2093

AUTHORS: Pollo, I.; Mal'tsev, A. N.; Yeremin, Ye. N.

TITLE: Equilibrium Concentrations of Nitrogen monoxide in the glow discharge. 6. Effect of feed composition on the formation of nitrogen monoxide in a narrow diameter reactor

SOURCE: Zh. fizicheskoy khimii. v. 37, no. 9, 1963, 2087-2093

TOPIC TAGS: equilibrium concentration, glow discharge, feed concentration, current strength, pressure effect

ABSTRACT: Paper deals with formation of nitrogen monoxide in a Silica tube of 3 mm diameter in narrow part of tube, which was 30 mm long and 60 mm between stainless steel electrodes. Under all conditions, the yield of NO in the narrow reactor was higher then that obtained in the large-diameter-reactor, and with a feed of stoichiometric composition reached 15.5%. In a range of low pressures and current strengths, the yield of nitrogen monoxide is directly proportional to product of pressure by current, but for higher values of p and C, this relation can be expressed in the form of an exponential equation. The strength of

1/2

Card

MAL'TSEV, A. N.; KOBOZEV, N. I.; AGRONOMOV, A. Ye.; VORONOVA, L. V.

Effect of the size of granule carrier on the macroscopic distribution of platinum in adsorption catalysts. Zhur. fiz. khim. 37 no. 3:628-633 Mr '63. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

Steady concentrations of nitrogen ... S/076/63/037/001/004/029
B101/B186

intensities the effect of the cathode space sets in. $[\%NO]_{max} = a - bi$ is valid between 300 and 800 ma. The constant a characterizes the process in the positive column, the constant b the process in the region of the cathode drop. The authors obtained a = 4.93 - 5.05 and b = 0.0031. The limit of the linear increase in $[\%NO]_{max}$ at increasing current intensity was not reached in the experiment. There are 3 figures and 2 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. N. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: May 16, 1961

Card 2/2

44892

S/076/63/037/001/004/029
B101/B186

11.1160

AUTHORS: Mironov, G. A., Mal'tsev, A. N., and Yeremin, Ye. N. (Moscow)

TITLE: Steady concentrations of nitrogen oxide on discharge. V. Study on the role of the cathode space of direct current glow discharge on nitrogen oxidation

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 36-43

TEXT: The effect of irregular energy distribution in d-c glow discharge on the oxidation of nitrogen is studied. The experiment was made in a quartz discharge tube with electrodes placed vertically one above the other. The upper electrode (cathode) had a 1.4 mm channel for removing the NO formed in the cathode space, in order to determine this analytically. The experiments were made at 50, 100, 200, and 300 mm Hg and 50 - 700 ma, also at 400 mm Hg and 50 - 800 ma. At 700 ma, maximum concentration [%NO] was obtained, being 7.4% at 50, 7.3% at 100, 7.2% at 200 - 300, and 7.1% at 400 mm Hg. At 400 mm Hg and 800 ma, 7.4% NO was obtained. For the synthesis of NO it is assumed that up to 300 ma the positive column of the glow discharge plays the main part, whereas at higher current

Card 1/2

ACCESSION NR: AT4010612

field, the best results being obtained at high frequencies (3000 kcps) and in a nitrogen atmosphere; in air, the catalytic activity was decreased. A similar effect was obtained with catalysts prepared by reduction of H_2PtCl_6 with hydrogen, only here the catalytic activity and beneficial effect of ultrasound increased with a decrease in the H_2PtCl_6 concentration. A study of the physical properties of the formaldehyde preparation showed that the presence of an ultrasonic field during the reduction process increases the surface area of the catalyst about 30% and significantly increases its paramagnetism; analysis of the specific activity, however, showed that the increase in surface area cannot account for the increased catalytic activity. The mechanism of action and structure of platinum black catalysts are discussed at length. Orig. art. has: 2 tables and 1 graph.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 00

DATE ACQ: 25Jan64

ENCL: 00

SUB CODE: CH

NO REF SOV: 005

OTHER: 000

Card 2/2

ACCESSION NR: AT4010612 S/3051/63/000/000/0192/0196

AUTHOR: Li, Wen-chou; Kobozev, N. I.; Mal'tsev, A. N.

TITLE: Effect of ultrasound on the genesis and properties of heterogeneous catalysts

SOURCE: Kataliticheskiye reaktsii v zhidkoy faze. Trudy* Vsesoyuznoy konferentsii. Alma-Ata, 1963, 192-196

TOPIC TAGS: catalyst, heterogeneous catalyst, hydrogenation, catalytic hydrogenation, ultrasound, platinum black

ABSTRACT: The authors studied the effect of ultrasound on the formation, activity and physical properties of crystalline platinum black prepared by the reduction of aqueous H_2PtCl_6, either with formaldehyde in an atmosphere of nitrogen, hydrogen or air and a 20, 548 or 3000 kcps ultrasonic field, or with hydrogen in a 548 kcps ultrasonic field. They also did some work with a catalyst prepared by the hydrogenation of H_2PtCl_6 adsorbed on alumina gel. Catalytic activity was assayed in three different reactions: the breakdown of H_2O_2, the hydrogenation of hexene-1 and the oxidation of ethanol to acetic acid. Although ultrasound has no effect on the activity of preformed catalysts, it significantly increased the activity of platinum black prepared by reduction of H_2PtCl_6 with formaldehyde in an ultrasonic

Card 1/2

BALANDIN, A.A., akad., red.; KOBOZEV, N.I., prof., red.; LEBEDEV, V.P., dots., zam. red.; MAL'TSEV, A.N., dots., zam. red.; AGRONOMOV, A.Ye., dots., zam. red.; GROMOV, V.N., red.; LAZAREVA, L.V., tekhn. red.

[Transactions of the First Interuniversity Conference on Catalysis] Trudy Mezhvuzovskogo soveshchaniia po katalizu, 1st. Moskva, Izd-vo Mosk. univ. No.1. Pt.1. 1962. 475 p. (MIRA 16:7)

1. Mezhvuzovskoye soveshchaniye po katalizu. 1st. 2. Khimicheskii fakul'tet Moskovskogo gosudarstvennogo universiteta (for Balandin, Kobozev, Lebedev).

(Catalysis--Congresses)

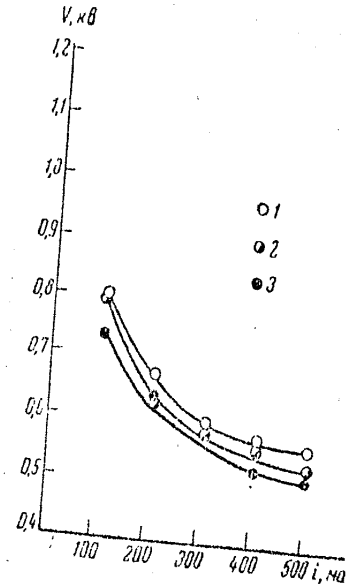
MAL'TSEV, A.N.

Analysis of switching circuits by means of constituents. Vych. tekh. i vop. prog. no.1:58-71 '62. (MIRA 16:6)
(Electric networks) (Switching theory)
(Electronic computers)

Steady-state concentrations ...

S/076/62/036/004/006/012
B101/B110

Fig. 10



Card 3/3

The limits of $(\%NO)_\infty$ were 5.5% in air; 8.1% in stoichiometric mixture, and 6.8% in "reciprocal air". At low amperages, however, approximately, equal $(\%NO)_\infty$ resulted in air and "reciprocal air". The volt-ampere characteristics of discharge in air, stoichiometric mixture, and "reciprocal air" showed that combustion voltage of the discharge is higher in air than in reciprocal air (Fig. 10). For mixtures enriched with O_2, the oscillograms of the voltage showed the appearance of oscillations with increased frequency (1500-2000 cps). There are 12 figures and 1 table.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: July 1, 1960

Fig. 10: Volt-ampere characteristics at 100 mm Hg. (1) air; (2) reciprocal air; (3) stoichiometric mixture; ordinate V, kv; abscissa i, ma.

S/076/62/036/004/006/012
B101/B110

11.1140

AUTHORS: Mal'tsev, A. N., Yeremin, Ye. N., and Meshkova, I. N.

TITLE: Steady-state concentrations of nitrogen oxide in electric discharge. IV. Effect of composition of the initial mixture on the formation of nitrogen oxide in a large vessel

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 4, 1962, 780-788

TEXT: The steady-state concentration $(\%NO)_\infty$ was studied at 50-300 mm Hg, with an amperage of electric discharge of 25-500 ma in "reciprocal air" ($N_2 : O_2 = 18 : 82$), and in stoichiometric mixture ($N_2 : O_2 = 46 : 54$). The results are compared with those obtained previously for air (Zh. fiz. khimii, 30, 1615, 1956). Results: For the mixtures investigated, $(\%NO)_\infty$ as a function of the amperage shows the same dependence as for air, i.e., at low pressure, $(\%NO)_\infty$ rises with increasing amperage and tends toward a limit which is rather independent of pressure; at high pressures, $(\%NO)_\infty$ passes through a maximum which lies close to the limit mentioned.

Card 1/3

BALANDIN, A.A., akademik, red.; KOBOZEV, N.I., prof., red.; LEBEDEV, V.P., dots., zam. red.; MAL'TSEV, A.N., zam. red.; AGRONOMOV, A.Ye., dots., zam. red.; TOPCHIYEVA, K.V., prof., red.; YUR'YEV, Yu.K., prof., red. PANCHENKOV, G.M., prof., red.; SOKOL'SKIY, D.V., akademik, red.; VOL'KENSHTEYN, F.F., prof., red.;LAZAREVA, L.V., tekhn. red.

[Catalysis in the institutions of higher learning; papers of the First Interuniversity Conference on Catalysis]Kataliz v vysshei shkole; trudy. Moskva, Izd-vo Mosk. univ. No.1. Pt.2. 1962. 325 p. (MIRA 15:10)

1. Mezhvuzovskoye soveshchaniye po kataliza. 1st, 1958. 2. Akademiya nauk Kazakhskoy SSR (for Sokol'skiy). 3. Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta (for Yur'yev). (Catalysis)

MAL'TSEV, A.N.; YEREMIN, Ye.N.; MARTEM'YANOV, V.S. (Moskva)

Stationary state concentrations of nitric oxide in a discharge. Part 3: Part played by the electrodic spot in the formation of nitrogen oxides in a glow discharge. Zhur. fiz. khim. 35 no.7: 1503-1505 Jl '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Nitrogen oxide) (Electric discharges through gases)

84243

Physical Chemistry of Concentrated Ozone. IX. Study of Ozone Adsorption on Silica Gel at Various Temperatures

S/076/60/034/009/001/022
B015/B056

the purpose of desorption, the cryostat was heated. The results of measurement show (Table 1) that ozone adsorption on silica gel rises to 7 to 8 times its amount with a temperature drop from -120°C to -150°C. Ozone desorption may thus be attained by a slight increase of temperature, or an effective separation of concentrated ozone with the aid of an adsorption-desorption cycle. For the temperatures of -120°, -130°, -140°, and -150°C the adsorption isothermal lines were obtained (Fig. 5), and it was found that they differ in appearance as well as according to the character of the dependence of adsorption on an increase of the ozone content in the equilibrium mixture. There are 5 figures, 2 tables, and 4 non-Soviet references: 3 German and 1 Swiss.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: July 15, 1958

Card 2/2

84243

S/076/60/034/009/001/022
B015/B056

11.1120

AUTHORS: Kobozev, N. I., Yeremin, Ye. N., Terekhova, M. G., and Mal'tsev, A. N.

TITLE: Physical Chemistry of Concentrated Ozone. IX. Study of Ozone Adsorption on Silica Gel at Various Temperatures

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 1893 -1899

TEXT: The adsorption of ozone on silica gel at low temperatures (from -80° to -150°C) was investigated by saturating the silica gel in the gas flow at constant temperature until adsorption equilibrium was established, and the adsorbed gas quantity was then determined by gas analysis. The ozone-oxygen mixture was produced in a silent electrical discharge; the duration of adsorption amounted to 1 - 6 h as a function of the experimental temperature, and the rate of flow of the gas was 43-45 l/h. The experiments were carried out in a circulating apparatus (Fig. 1). The silica gel was in an adsorber cooled with liquid nitrogen (Figs. 2, 4). The latter was cooled in a crycstat (Fig. 3), whereas for

Card 1/2

Some Structural Problems of Hydrogenation Catalysis III

S/076/60/034/06/06/040
B015/B061

A. V. Bukhman, and Yu. G. Lapin are mentioned in the text. There are 7 figures, 4 tables, and 15 references: 14 Soviet and 1 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: June 30, 1958

Card 3/3

Some Structural Problems of Hydrogenation Catalysis III

The hydrogenation thus takes place on three types of active centers, i.e., $[Pt_2]$, $[Pt_{6-7}]$ and $[Pt_{12}]$. The ensemble $[Pt_{12}]$ occurs with relatively high degrees of occupation. Since the above maxima agree for all four hydrocarbons examined, it was established that the structure of the molecule to be hydrogenated is not decisive for the structure of the active center. On the basis of the theory of the active centers, the absolute activity (Table 3), and the activity of the centers for three of the hydrocarbons examined (Table 4) were calculated. The calculated values agree well with the experimental data. The rise in the activity of the platinum ensemble $[Pt_2] \longrightarrow [Pt_{12}]$ is explained by the theory of N. I. Kobozev (Ref. 6), and is due to the self-activation of the catalyst owing to the recuperation of the energy of the hydrogenation reaction. The part of the energy which is recuperated by the catalyst, and which leads to the self-activation of the active centers, depends in some measure on the structure and energetic characteristics of the molecule to be hydrogenated. A. A. Balandin, L. A. Nikolayev, N. A. Reshetovskaya, A. A. Lopatkin, V. I. Shekhobalova, V. P. Lebedev, V. M. Gryaznov, A. V. Frost, D. V. Sokol'skiy, K. I. Stender, N. I. Shcheglov,

Card 2/[illegible]

8156
S/076/60/034/06/06/040
B015/B061

5.1190

AUTHORS: Mal'tsev, A. N., Kobozev, N. I., Semenova, T. V., Karpova, Ye. I. (Moscow)

TITLE: Some Structural Problems of Hydrogenation Catalysis III

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 6, pp. 1190-1199

TEXT: The connection between the structure of a hydrocarbon to be hydrogenated, and the structure of the active center of the catalyst was examined. The number of atoms in the active ensemble of the platinum and palladium catalysts were already calculated in the authors' laboratory and by other researchers (Table 1, data on the hydrogenation and dehydrogenation tests). The present examinations took place on the hydrogenation of 1-heptene, cyclohexene, methylcyclohexane, and 1,3-cyclohexadiene (Table 2, refractive indices) in an ethanol solution at 25° on silica gel with a very thinly applied (0.001-0.02 monatomic) layer of platinum. The experimental diagrams (Fig. 1) of the dependence of the activity of the degree of occupation of the catalyst show three maxima.

Card 1/3

On Steady Concentrations of Nitrogen Oxide in Discharge. II. Experiments With Air and a Narrow Tube SOV/76-33-7-25/40

$[\%\ NO]_\infty$ passes, after a sharp rise, through a maximum. In the present tube, the concentrations of (I) are higher than in that mentioned in reference 1; at 100 torr they attained 11.3%, the highest value ever attained in direct synthesis from air. Thus, the non-thermal nature of activation of the reaction is confirmed. Measurements of the dependence of $[\%\ NO]_\infty$ on the product of amperage and pressure (ip) showed a nature similar to that described in reference 1. The voltage of discharge was measured by means of S-95 and S-96 voltmeters, compared with measurements on NOM-6 and NOM-10 measuring transformers; the results agreed well with one another. It was found that the relative longitudinal potential gradients are four times lower than in the reactor (Ref 1). The experimental results obtained are explained from the standpoint of a chain decomposition of (I). There are 5 figures and 6 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 10, 1958

Card 2/2

SOV/76-33-7-25/40

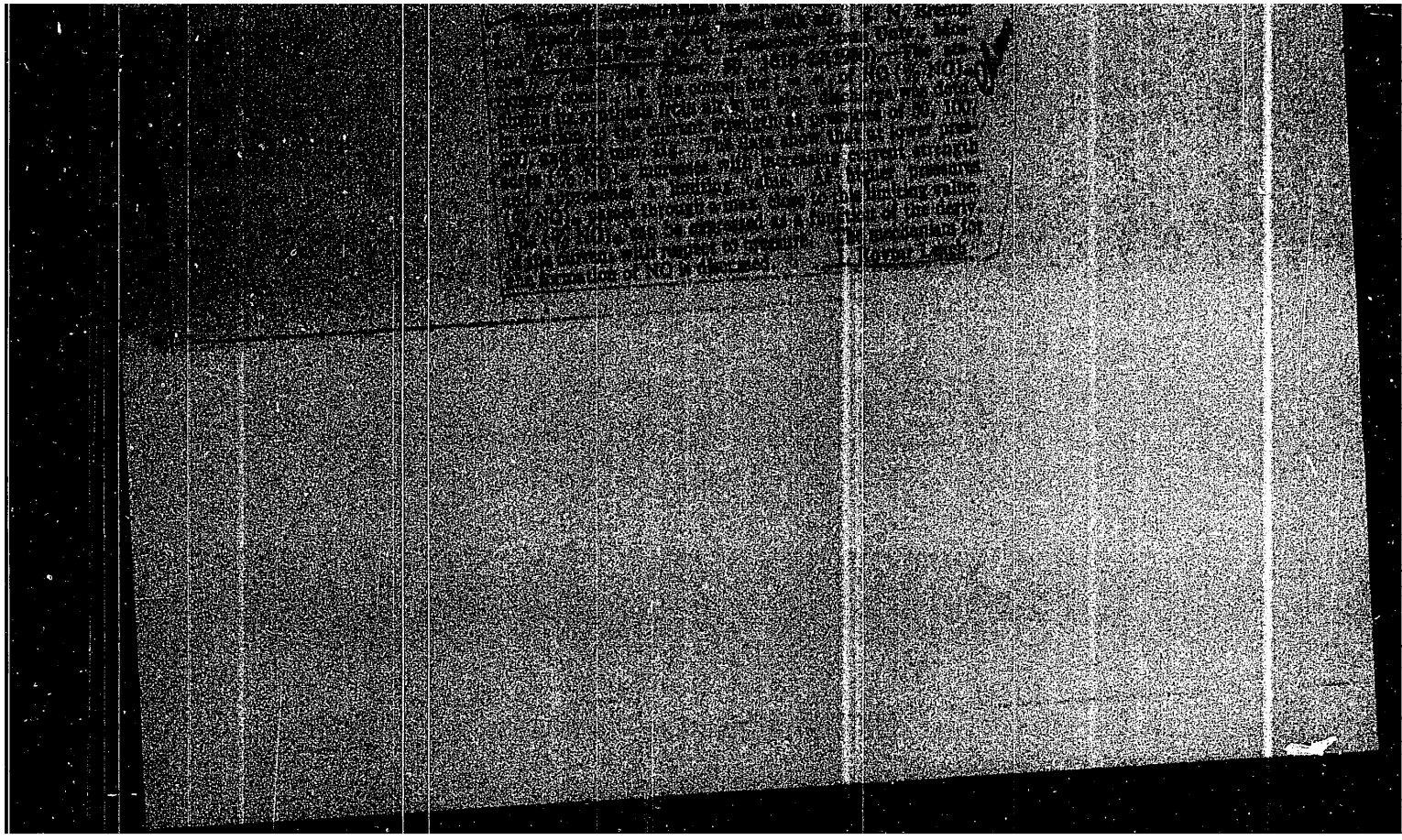
5(4)
AUTHORS: Mal'tsev, A. N., Yeremin, Ye. N., Vorob'yeva, I. N.

TITLE: On Steady Concentrations of Nitrogen Oxide in Discharge. II Experiments With Air and a Narrow Tube

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1618 - 1624 (USSR)

ABSTRACT: In a previous paper (Ref 1), the dependence of the steady concentration of nitrogen oxide (I) $[\%NO]_\infty$ on the amperage in production from air during smoldering discharge was investigated in a wide vessel at different pressure. In the present case, the authors checked the same dependence on $[\% NO]_\infty$ in a reaction tube at an atmospheric pressure of between 50 and 300 torr. (I) was synthesized within a range of electric discharge by means of a circulation apparatus described already earlier (Ref *). A quartz tube was used as a reaction tube (Fig 1) which was 3 mm thick within the range of discharge (diameter of the range: 32 mm). Measurement results indicate that there are two kinds of dependences of $[\% NO]_\infty$ on amperage present: 1) At 50 and 100 torr the steady (I)-concentration first increases, and then apparently approaches a final value; 2) At 200 and 300 torr

Card 1/2



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031900030-6

Category: USSR / Physical Chemistry
Thermodynamics. Thermochemistry. Equilibrium. Physico-chemical analysis. Phase transitions. B-8

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 29885

Author : Yeremin Ye. N., Mal'tsev A. N.
Inst : not given
Title : Thermodyoamically Equilibrated Concentrations of Nitrogen Oxide

Orig Pub: Zh. fiz. khimii, 1956, 30, No 5, 1179-1181

Abstract: On the basis of most recent data concerning bond energy of N_2, O and NO and the function $(F^o - H^o)/T$ for N_2, O_2, NO, N and H, equilibrium of the reaction $N_2 + O_2 \rightleftarrows 2NO$ was calculated, without (1), and with taking into account (2) the reactions $N_2 \rightleftarrows 2N$ and $O_2 \rightleftarrows 2O$. Calculations were carried out in the interval 1000-5000° K, for air and stoichiometric mixture of N_2 and O_2, at P of 1 atmosphere and 50 mm. In the case of (2), in contrast with (1), the curve representing the dependence of equilibrium concentration of NO on the temperature has a maximum the height and position of which depend upon the pressure.

Card : 1/1

-14-

ILLEGIBLE

Periodical : Zhur. fiz. khim. 29/1 142-158, Jan 1955

Card 2/2 Pub. 147 - 18/26

Abstract : A monoatomic center (Pt_1) was observed functioning at very low charges and a tetra-atomic ensemble (Pt_4), the activity of which is demonstrated only during hydrogenation of much higher alkenes, was seen functioning at higher charges. Data regarding the dimension of the Pt hydrogenation ensemble are included. Seventeen USSR references (1930-1950). Tables; graphs; drawings.

MAL'TSEV, A.N.

USSR/ Chemistry - Hydrogenation

Card 1/2 Pub. 147 - 18/26

Authors : Mal'tsev, A. N., and Kobozev, N. I.

Title : Investigation of active centers of ethylene hydrocarbon hydrogenation. I.

Periodical : Zhur. fiz. khim. 29/1, 142-158, Jan 1955

Abstract : The hydrogenation centers of ethylene hydrocarbons (alkenes C_2H_4, C_4H_8, C_5H_{10}) over adsorption Pt catalysts (Pt/SiO_2, Al_2O_3) were investigated at various charging degrees. The basic hydrogenation center of an ethylene bond was found to be a diatomic Pt ensemble (Pt_2) the characteristics of which are described.

Institution : The M. V. Lamonosov State University, Moscow

Submitted : June 2, 1954

MAL'TSEV, A. N.

USSR/Chemistry - Magnetochemistry, Catalysts

Sep 52

"Magnetochemistry of Active Centers: I. Magnetic and Catalytic Properties of Dilute Films," N.I. Kobozev, V.B. Yevdokitov, I.A. Zubovich, and A. N. Mal'tsev, Moscow State U

Zhur Fiz Khim, Vol 26, No 9, pp 1349-1373

Investigated catalytic and magnetic properties of dil films of Pt, Ag, and other paramagnetics on various carriers as a function of the degree of filling of the surface. Found that all these paramagnetics on all carriers (Pt/silica gel, Fe/carbon, $CoCl_2.6H2O$/silica gel, $Ni(NO_3)_2 6H_2O$/carbon, $Ag_1/BaSO_4$, $Ag_1/BaCO_3$) show an abnormally high paramagnetism ("superparamagnetism") in dil films equal to several times10 Bohr magnetons per atom. Ascribe this paramagnetism to a change in the statistics of the Langevin "paramagnetic gas" in adsorption films. Found that Fe on C in respect to magnetism behaves analogougly to paramagnetic Pt. This acc to the authors, demonstrates the purely paramagnetic, i.e., atomic and not cryst character of these films. Also studied the susceptibility of dil films of a normally diamagnetic metal, Ag, on C, $BaSO_4$, and $BaCO_3$, establishing emergence of a paramagnetic form of Ag, which passes through a max with increasing density of the film. In films of high concn, Ag is diamagnetic. This indicates the formation of atomic ensembles of Ag. The paramagnetic form of Ag in films also exhibts "superparamagnetism." In the catalytic hydrogenation of ethylene on dil films of Pt, authors establish clear parallelism bet paramagnetism and hydorgenation activity. This was

(over)

261T39

1965

MAL'TSEV, A. M.

26 July 1963

DECEASED

(Pravda Vostoka, Tashkent)

AGRONOMIST

MAL'TSEV, A.K.

Use of quantitative thermography at low temperatures. Trudy MKHTI no.44: 24-34 '64. (MIRA 18:2)

L 12600-63

ACCESSION NR: AP3003469

research. However, during quicker heating of low-temperature sulfur condensate from 196C a new interesting effect was discovered. After change in condensate color, it was converted to liquid (nonstable) at temperatures of approximately 60C, i.e. 170 degrees lower than the melting point of ordinary rhombic sulfur. A hypothesis was stated, explaining the character of the low-temperature condensate by the presence in the condensate of chain molecules of sulfur which are not biradicals. Orig. art. has: 1 table.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva (Moscow Chemical Engineering Institute)

SUBMITTED: 16Jun62 DATE ACQ: 02Aug63 ENCL: 00

SUB CODE: OH NO REF SOV: 005 OTHER: 010

Card 2/2

L 12600-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3003469 S/0078/63/008/007/1559/1562

53
52

AUTHOR: Mal'tsev, A. K.

TITLE: Low-temperature sulfur fusion

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1559-1562

TOPIC TAGS: polymerization, sulfur

ABSTRACT: One of the chief causes of polymerization in vapors of shortchain sulfur molecules during contact with cold surface is its sufficiency high energy during vapor temperatures above 400C. In the case when low-temperature sulfur condensates a white or green color, there are more favorable conditions for conservation of rigid chain molecules. In addition, with lower temperatures, the equilibrium in vapors of sulfur are combined to the side of the molecules with large numbers of atoms. From this viewpoint the research on white and green low temperature condensates obtained from vapors with temperature below 400C was of particular interest. If after completion of condensation the coldagent is removed, then the white or green low-temperature sulfur condensate forming during decreased temperatures of nearly 80C becomes yellow which was noted in all the previous

Card 1/2

KAPUSTINSKIY, A.F. [deceased]; MAL'TSEV, A.I.; MILL', B.V.

Investigating brown and green sulfur by differential thermal analysis at low temperatures. Trudy MKhTI no.35:77-81 '61. (MIRA 14:10)

(Sulfur)

KAPUSTINSKIY, A. F.[deceased]; MAL'TSEV, A. K.

Preparation of brown and green sulfur. Trudy MKHTI no.35:73-76 '61. (MIRA 14:10)

(Sulfur)

KAPUSTINSKIY, A.F.; MAL'TSEV, A.K.; MILL', B.V.

Low-temperature form of sulfur. Zhur.neorg.khim. 5 no.2:506 F '60. (MIRA 13:6)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

(Sulfur)

MAL'TSEV, A.K.

DRAKIN, S.I.; MAL'TSEV, A.K.

Electrodiffusion in potassium-sodium alloys [with summary in English] Zhur.fiz.khim. 31 no.9:2036-2041 S '57. (MIRA 11:1)

1.Moskovskiy khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva.
(Potassium-sodium alloys) (Diffusion) (Electrochemistry)

MAL'TSEV, A. M.

"Data on Surgical Treatment of Malignant Tumors of the Clavicular Region,"

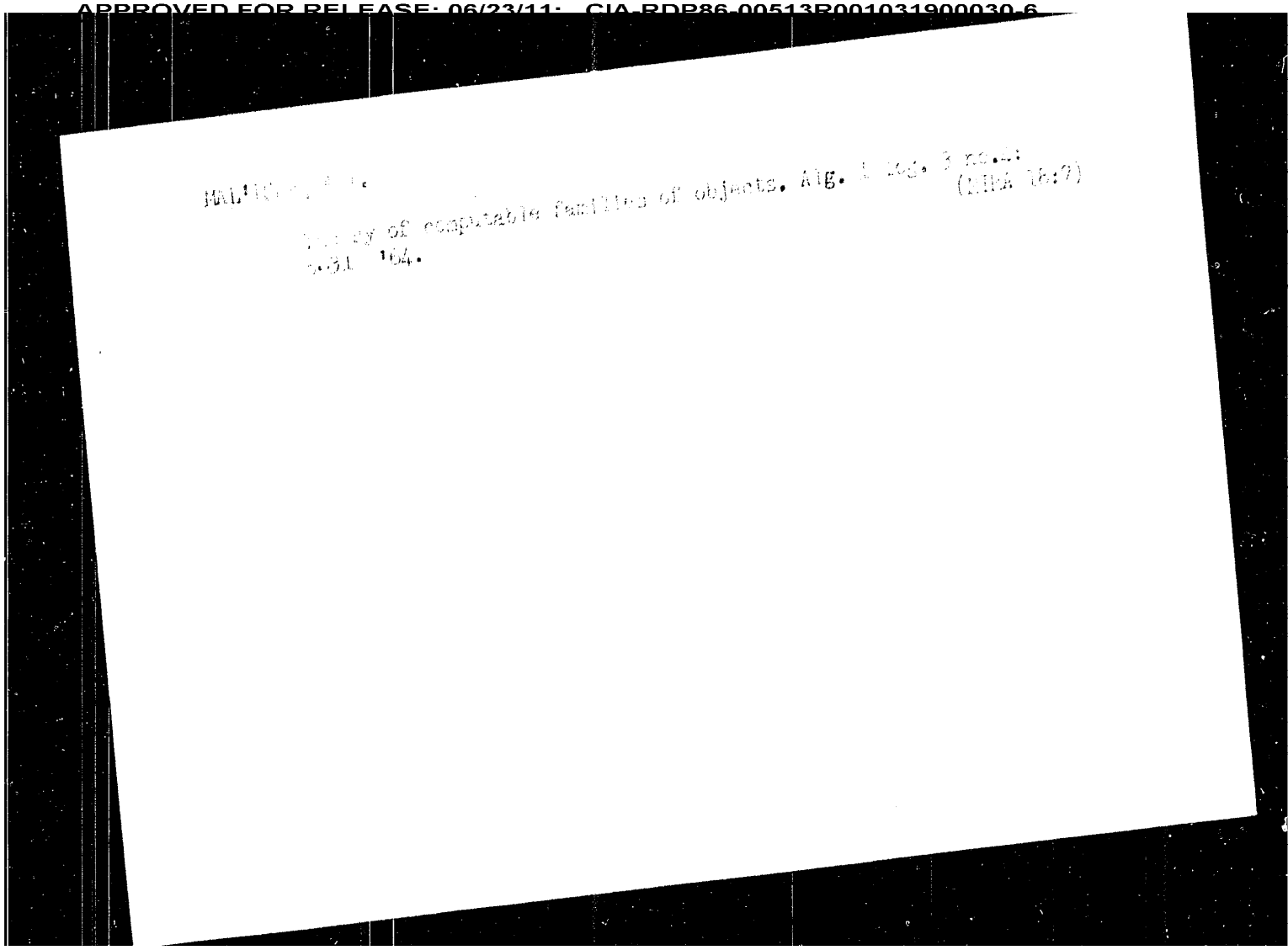
SO: Khirurgiya, No. 3, 1949. Mbr., Hospital Surgical Clin., Bashkir Med. Inst.
-c1949-.

MAL'TSEV, Anatoliy Ivanovich; ZAKHAROV, D.A., red.; DONCHENKO, V.V., red.

[Algorithms and recursive functions] Algoritmy i rekursivnye funktsii. Moskva, Nauka, 1965. 391 p. (MIRA 19:1)

MAL'TSEV, A.I.; PLOTKIN, B.I.

Petr Grigor'evich Kontorovich, 1905- ; on his 60th birthday.
Usp. mat. nauk. 20 no.4:209-212 Jl-Ag '65. (MIRA 18:8)



MAL'TSEV, A.I., podpolkovnik med.sluzhby; CHERNOV, I.G., podpolkovnik med. sluzhby

Compound treatment of ulcer patients by the use of Novyye-Senzhary mineral water. Sbor.nauch.trud.Kiev.okruzh.voen.gosp. no.4:159-164 '62. (MIRA 16:5)

(DUODENUM--ULCERS)
(NOVYYE SENZHARY DISTRICT--MINERAL WATERS)

MAL'TSEV, A.I.

Restoration of the injured ligamentous apparatus of the acromioclavicular articulation by a new method. Vest.khir. no.3: 112-114 '62. (MIRA 15:3)

(JOINTS---SURGERY) (CALVICLE---DISLOCATION)
(LIGAMENTS---SURGERY)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031900030-6

MAL'TSEV, A. I.

Simultaneous restoration of 2 and 3 ligaments of the knee joint with a single fascial pedicle flap. Vest. khir. no.12:72-77 '61. (MIRA 15:2)

(KNEE--SURGERY) (FASCIAE(ANATOMY)--TRANSPLANTATION)

MAL'TSEV, A. I., mayor meditsinskoy sluzhby

Repeated surgical intervention on the knee joint following removal of a damaged menisous. Voen.-med. zhur. no.12:68 D '61. (MIRA 15:7)

(KNEE—SURGERY)

MAL'TSEV, A. I., (Major of the Medical Service)

"Second Operations on the Knee Joint after Removal of an Injured Meniscus"

Voyenno-Meditsinskiv Zhurnal, No. 12, December 1961, pp 62-73

KHESTANOV, G.T., podpolkovnik meditsinskoy sluzhby; MAL'TSEV, A.I., podpolkovnik meditsinskoy sluzhby; CHERNOV, I.G., podpolkovnik meditsinskoy sluzhby

Compound treatment of chronic gastritis at the Novye Senzhary Sanatorium. Voen.-med. zhur. no.6:78 Je '61. (MIRA 14:8)
(STOMACH--INFLAMMATION)
(NOVYE SENZHARY--MINERAL WATERS)

MAL'TSEV, A.I.

Intra-arterial injection of streptomycin in suppurative diseases and injuries of the extremities. Khirurgiia 35 no. 5:88-93 My '59. (MIRA 13:10)

(STREPTOMYCIN) (EXTREMITIES (ANATOMY)--SURGERY)

MAL'TSEV, A.I., kapitan med.sluzhby

Retrograde intramedullary introduction of Dubrov's nail without the head. Voen.-med.zhur. no.12:57-58 D '58. (MIRA 12:12)
(FRACTURES, surgery,
intramedullary fixation with Dubrov's nail without head (Rus))

17(SOV/177-58-5-18/30

AUTHORS: Mal'tsev, A.I., and Chernov, I.G., Lieutenant-Colonels of the Medical Corps

TITLE: The Treatment of Patients Suffering From Chronic Gastritis in the Novo-Senzharskiy Sanitarium (Lecheniye bol'nykh khronicheskim gastritom v Novo-Senzharskom sanatorii)

PERIODCIAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 5, pp 74-75 (USSR)

ABSTRACT: The physicians of the Novo-Senzharskiy Sanitarium have developed a medical-protective system for removing the factors which cause a negative emotion in patients suffering from chronic gastritis. The system includes diet, hygienic gymnastics, physiotherapy and climatotherapy. Good results have been obtained.

Card 1/1

MAL'TSEV, A.I., kapitan med.sluzhby

Intra-arterial adminstration of penicillin in suppurative diseases and injuries. Voen.med.zhur. no.12:78 D'57 (MIRA 11:5)
(PENICILLIN)

MAL'TSEV, A.I., kapitan med.sluzhby

Use of metal nails in fractures of long bones. Voen-med.zhur. no.11:74 N '57. (MIRA 11:4)
(FRACTURES)

L 25675-66
ACC NR: AM6012698 0

SUB CODE: 12/ SUBM DATE: 21Oct65/ ORIG REF: 030/ OTH REF: 091
Card 2/2 dda

L 25675-66 EWT(d)/T IJP(c)

ACC NR: AM6012698 Monograph UR/

33

Mal'tsev, Anatoliy Ivanovich

B+1

Algorithms and recursive functions (Algoritmy i rekursivnyye funktsii) Moscow, Izd-vo "Nauka", 1965. 391 p. illus., biblio., indices 13,000 copies printed.

TOPIC TAGS: mathematic analysis, algorithm mathematical logic, applied mathematics, programming

PURPOSE AND COVERAGE: This book gives a systematic outline of the theory of algorithms and recursive functions. Application of the theory of algorithms to algebra, mathematical logic, and number theory is also considered. The book contains a great deal of additional material, up to now published only in scientific periodicals. Therefore, it may be of interest to graduate students and scientific workers dealing with mathematical logic and its application to mathematics, programming theory, mathematical linguistics, and several related sciences.

TABLE OF CONTENTS [abridged]:

Card 1/2 UDC 519.95

L 32663-65

ACCESSION NR: AP5010563

objects is isomorphic with respect to the enumeration of the corresponding pulsation N/0 α. Each finitely distinguishable family of recursively enumerable sets β possesses an enumeration β is an isolated positive family; III) Each negative enumeration α of an arbitrary family of objects is isomorphic with respect to a proper enumeration of a proper family of generally recursive functions assuming only the values 0,1. Reference is made to work by R. M. Friedberg (J. Symbolic Logic, 23, 308, 1958) concerning nonuniformity of enumerations. Orig. art. has: 1 formula.

ASSOCIATION: none

SUBMITTED: 19Oct64 ENCL: 00 SUB CODE: MA

NO REF SOV: 002 OTHER: 001

Card 2/2

L 30684-65 EWT(d)/T Pa-4 IJP(c)

ACCESSION NR: AP5004583 S/0020/65/160/002/0278/0280

AUTHOR: Mal'tsev, A. I. (Academician)

21

B

TITLE: Positive and negative enumerations

SOURCE: AN SSSR. Doklady, v. 160, no. 2, 1965, 278-280

TOPIC TAGS: binary logic, number theory, symbolic logic, algebraic logic, set theory

ABSTRACT: Some definitions and relationships in the field of computational enumerating are developed. The terminology used was defined earlier by the author (Algebra i logika, 3, No. 4, 3, 1964). It is stated that enumeration equivalences of computational enumerations of the families of recursively enumerable sets belong to the class $\forall\exists$ according to the Kliny classification. Three theorems are developed for positive and negative enumerations: I) If a basic enumeration α of a set of objects $\mathfrak{U}$ is positive (negative), then each α-enumeration β of an arbitrary subset $\mathfrak{B} \subseteq \mathfrak{U}$ is also positive (negative). If α is positive and the subset $\mathfrak{B}$ is α-enumerable (has at least one α-enumeration), then $\mathfrak{B}$ is α-isolated; II) Each positive enumeration α of an arbitrary set of

Card 1/2

L 30240-66 EWT(d) IJP(c)

ACC NR: AP6020164 SOURCE CODE: UR/0039/66/069/001/0003/0012

AUTHOR: Mal'tsev, A. I. (Novosibirsk)

24
B

ORG: none

TITLE: Identical relations on manifolds of quasi-groups

SOURCE: Matematicheskiy sbornik, v. 69, no. 1, 1966, 3-12

TOPIC TAGS: group theory, Euclidian space, integration, algebra

ABSTRACT: The purpose of this paper is to construct for commutative loops L a manifold that is defined by a finite system of identities from one variable such that it is algorithmically impossible to identify the reality of an arbitrarily given identity from one variable on each loop of manifold L. According to the author, this may be the first treatment of such manifolds in the literature. A free loop having one generator cannot be constructed in manifold L. The first of the four sections of the paper reviews the problem of identical relations in general terms. In the second section auxiliary algebraic manifolds are constructed with two integral operations having a nonrecursive free algebra. In the third section an auxiliary lemma on the extension of partial loops is proved. In the fourth section a manifold constructed in the second section is used to construct a loop manifold and a commutative loop manifold in which free loops with single generators are nonrecursive. Orig. art. has: 19 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 19Feb65 / ORIG REF: 001 / OTH REF: 001

Card 1/1 UDC: 519.47

MAL'TSEV, A.I., akademik

Recursive Abelian groups. Dokl. AN SSSR 146 no.5:1009-1012 O '62.
(MIRA 15:10)
(Abelian groups)

MAL'TSEV, A.I., akademik

Strictly related models and recursively perfect algebras. Dokl.AN SSSR 145 no.2:276-279 Jl '62. (MIRA 15:7)
(Mathematical models) (Algebraic topology)

MAL'TSEV, A.I.; CHARIN, V.S.

Sergei Nikolaevich Chernikov; on his 50th birthday. Usp. mat. nauk 17 no.5:177-181 S-O '62. (MIRA 15:12)
(Chernikov, Sergei Nikolaevich, 1912-)

MAL'TSEV, A.I.

Axiomatized classes of certain types of locally free algebras.
Sib. mat. zhur. 3 no.5:729-743 S-O '62. (MIRA 15:9)
(Algebra, Universal)

MAL'TSEV, A.I.

Completely enumerable sets. Alg. i log. 2 no.2:3-29 '63
(MIRA 18:1)

1. Submitted February 25, 1963

MAL'TSEV, A. I.

"Theories of the first order of some classes of groups and rings"

report submitted at the Intl Colf of Mathematics, Stockholm, Sweden, 15-22 Aug 62

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